

Notice of Allowability

Application No.

09/986,005

Examiner

Kevin R Kruer

Applicant(s)

IKEGAWA ET AL.

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Applicant's arguments filed November 12, 2004.
2. ☒ The allowed claim(s) is/are 1,3 and 5-19.
3. ☒ The drawings filed on 07 November 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

Claims 1, 3, and 5-19 are allowed.

The closest prior art is Polak (US 4,337,279) in view of Orikasa et al (US 5,179,160), Suzuki et al (US 5,578,679), Orikasa et al (US 5,157,070) or Bailey et al (US 5,681,893). Polak teaches a metal-clad polymer that has been treated with gas plasma prior to deposition of the metal (abstract). The polymer material may be selected from the group comprising polyamides and polyphenaline sulfide (sic) (col 2, lines 37+). Deposition of the metal is accomplished by any means known in the art, such as sputtering, electrolysis, vapor deposition, etc. (col 3, lines 39+). The secondary references (Orikasa '160, Suzuki, Orikasa '070, and Bailey) each individually teach a polymeric composition comprising either polyphthalamide and a claimed elastic material or polyphenylene sulfide and a claimed elastic material. Said polymeric compositions are taught to exhibit a variety of superior physical properties.

The claims are allowable over the prior art because the prior art fails to teach or render obvious the unexpected results obtained by the claimed invention. Specifically, blends of polyphthalamide or polyphenylene sulfide with the claimed elastic materials exhibit a significant and unexpected increase in their 90° peel strength adhesion with a metal coating provided on the surface by a physical deposition method. Said results are detailed in Table 1 of the specification.

Examples 1-6 are inventive examples of polyphthalamide blended with a claimed elastic material. In comparison to an example comprising a polyphthalamide that did

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not contain an elastic material (Comparative Example 1), all of examples 1-6 exhibit an unexpected and significant increase in their 90° peel strength adhesion with a deposited metal coating. Polyphthalamide blended with ethylene-glycidyl methacrylate-ethylene ethyl acrylate copolymer (Example 4) exhibited over a 4% increase in 90° peel strength adhesion. Blending the other claimed elastic materials with polyphthalamide (examples 1-3) resulted in a 10% or greater increase in the 90° peel strength adhesion.

Similar results are obtained when the claimed elastic materials are blended with polyphenylene sulfide base resin. For example, blending a graft copolymer of ethylene glycidyl methacrylate copolymer and acrylonitrile-styrene copolymer with a polyphenylene sulfide base resin resulted in over an 80% increase in the peel strength adhesion strength in comparison to a polyphenylene sulfide resin that did not contain an elastic material.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin R Kruer whose telephone number is 571-272-1510. The examiner can normally be reached on Monday-Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on 571-272-1535. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kevin R. Kruer
Patent Examiner-Art Unit 1773